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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/519,481	12/30/2004	Timo Viero	60091.00368	2846
32294 7590 01/02/2008 SQUIRE, SANDERS & DEMPSEY L.L.P. 14TH FLOOR 8000 TOWERS CRESCENT TYSONS CORNER, VA 22182			EXAMINER MILLER, BRANDON J	
			ART UNIT 2617	PAPER NUMBER
			MAIL DATE 01/02/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/519,481

Applicant(s)

VIERO ET AL.

Examiner

Brandon J. Miller

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-18 and 20-64 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-18 and 20-64 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

Claims 1-2, 4-18, and 20-64 remain pending in the application.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Claim 35 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

A computer program embodied on a computer readable medium is not described nor suggested in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-2, 4-18, and 20-64 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "signal classes" in line 5. This limitation is unclear because it suggests that a group of signals have been divided into classes, however the claim does not describe such an operation taking place. Furthermore, the limitation "determining one or more division criteria for signal classes for dividing signals or signal components" in lines 5-6 does not particularly point out whether the division criteria is for signal classes or for dividing signals or signal component. Therefore, the claim is rendered indefinite.

Claims 5-17 are rejected based on their dependence of independent claim 1.

Claim 2 recites a limitation similar to claim 1 and is rejected given the same reasoning as above.

Claim 4 recites a limitation similar to claim 1 and is rejected given the same reasoning as above. Claims 38-50 are rejected based on their dependence of independent claim 4.

Claim 18 recites a limitation similar to claim 1 and is rejected given the same reasoning as above. Claims 21-34 are rejected based on their dependence of independent claim 18.

Claim 20 recites a limitation similar to claim 1 and is rejected given the same reasoning as above. Claims 51-64 are rejected based on their dependence of independent claim 20.

Claim 35 recites a limitation similar to claim 1 and is rejected given the same reasoning as above.

Claim 36 recites a limitation similar to claim 1 and is rejected given the same reasoning as above.

Claim 37 recites a limitation similar to claim 1 and is rejected given the same reasoning as above.

Claim 13 recites the limitation "quality class" in line 2. This limitation is unclear because it suggests that a group has been divided into quality classes, however the claim does not describe such an operation taking place.

Claim 29 recites a limitation similar to claim 13 and is rejected given the same reasoning as above.

Claim 46 recites a limitation similar to claim 13 and is rejected given the same reasoning as above.

Claim 59 recites a limitation similar to claim 13 and is rejected given the same reasoning as above.

The following art rejection is based upon the best possible interpretation of the claim language in light of the rejection under 35 U.S.C. 112, second paragraph.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 36-64 are rejected under 35 U.S.C. 102(e) as being anticipated by Schieder et al. (US 2004/0106417 A1).

Regarding claim 36 Schieder teaches a circuit arrangement comprising a plurality of nodes arranged to perform at least one operation (see paragraphs [0031] & [0044]). Schieder teaches dividing at least one signal or component of a signal according to one or more predetermined division criteria for signal classes (see paragraph [0026]). Schieder teaches performing the predetermined operations according to the signal classes (see paragraph [0044]).

Regarding claim 37 Schieder teaches a first node configured to: arranged with at least one second node to perform at least one operation (see paragraphs [0031] & [0044]). Schieder teaches dividing a signal or a component of a signal according to one or more predetermined division criteria for signal classes (see paragraph [0026]). Schieder teaches performing predetermined operations according to the signal classes (see paragraph [0044]).

Regarding claim 38 Schieder teaches wherein the signals or the signal components transfer packet-form data and the signal classes are indicated in the packet header (see paragraph [0026]).

Regarding claim 39 Schieder teaches wherein the nodes perform the tasks of the radio-frequency parts or the base band parts (see paragraph [0026]).

Regarding claim 40 Schieder teaches wherein the circuit arrangement enables transfer of feedback information (see paragraph [0042]).

Regarding claim 41 Schieder teaches wherein signals to be modulated in different manners in one or more baseband nodes are divided into different signal classes (see paragraph [0026]).

Regarding claim 42 Schieder teaches wherein the data can be transmitted from the nodes in unicast to one node or in multicast or broadcast to a plurality of nodes (see abstract and paragraph [0016]).

Regarding claim 43 Schieder teaches wherein the network traffic load is monitored according to the signal classes (see paragraph [0036]).

Regarding claim 44 Schieder teaches wherein the signal classes constitute a hierarchic signal class system, which class system comprises one or more levels (see paragraph [0044], data transmitted only during speech inactivity relates to hierarchic class system).

Regarding claim 45 Schieder teaches wherein inter-node links have a maximum capacity, within which the number and type of the transmitted signal classes can be altered (see paragraph [0036]).

Regarding claim 46 Schieder teaches wherein the quality class is taken into account when the signal is clipped (see paragraph [0035]).

Regarding claim 47 Schieder teaches wherein the signal power is measured in each of a quality class (see paragraph [0039]).

Regarding claim 48 Schieder teaches wherein the signals having different requirements for modulation accuracy are divided into different signal classes (see paragraph [0026]).

Regarding claim 49 Schieder teaches wherein the signals are divided into different signal classes after of at least one of the following: spatial, temporal or frequency level pre-processing (see paragraphs [0026] & [0029]).

Regarding claim 50 Schieder teaches wherein the signals are divided into different signal classes after interference cancellation pre-processing (see paragraph [0035], not transmitting background noise relates to interference cancellation).

Regarding claim 51 Schieder teaches a device as recited in claim 38 and is rejected given the same reasoning as above.

Regarding claim 52 Schieder teaches a device as recited in claim 39 and is rejected given the same reasoning as above.

Regarding claim 53 Schieder teaches a device as recited in claim 40 and is rejected given the same reasoning as above.

Regarding claim 54 Schieder teaches a device as recited in claim 41 and is rejected given the same reasoning as above.

Regarding claim 55 Schieder teaches a device as recited in claim 42 and is rejected given the same reasoning as above.

Regarding claim 56 Schieder teaches a device as recited in claim 43 and is rejected given the same reasoning as above.

Regarding claim 57 Schieder teaches a device as recited in claim 44 and is rejected given the same reasoning as above.

Regarding claim 58 Schieder teaches a device as recited in claim 45 and is rejected given the same reasoning as above.

Regarding claim 59 Schieder teaches a device as recited in claim 46 and is rejected given the same reasoning as above.

Regarding claim 60 Schieder teaches a device as recited in claim 47 and is rejected given the same reasoning as above.

Regarding claim 61 Schieder teaches a control unit, which controls the division into signal classes (see paragraphs [0031] & [0044]).

Regarding claim 62 Schieder teaches a device as recited in claim 48 and is rejected given the same reasoning as above.

Regarding claim 63 Schieder teaches a device as recited in claim 49 and is rejected given the same reasoning as above.

Regarding claim 64 Schieder teaches a device as recited in claim 50 and is rejected given the same reasoning as above.

Claim Objections

4. Claim 20 is objected to because of the following informalities:

Claim 20 appears to have spelling and/or typographical errors in line 3 -“at least one signals”-. Appropriate correction is required for spelling and/or typographical error in this claim and any other claim that contains them.

Response to Arguments

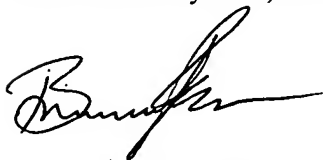
5. Applicant's arguments with respect to claims 1-2, 4-18, and 20-64 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandon J. Miller whose telephone number is 571-272-7869. The examiner can normally be reached on Mon.-Fri. 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

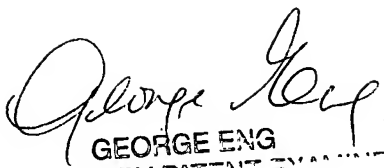
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December 31, 2007

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GEORGE ENG
SUPERVISORY PATENT EXAMINER